

Update on CaRFG3 Program & Impacts of Denial of Waiver Request

July 2001

California Environmental Protection Agency



Air Resources Board

CaRFG3 Regulations

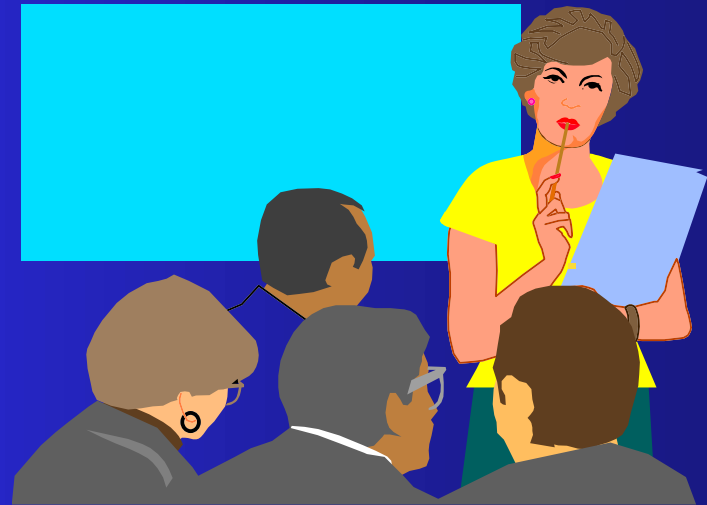
- **Approved on December 9, 1999**
- **Implements the Governor's Executive Order**
- **Removes MTBE from California gasoline December 31, 2002**
- **Provides additional flexibility to remove MTBE and use ethanol**
- **Enhances emission benefits of current program**
- **Accommodates need for imports on routine basis**
- **Additional follow-up needed**

Major Progress to Date

- **CaRFG3 regulations approved by Environmental Policy Council on January 18, 2000 in conformance with legislation passed in 1999**
- **Board approved CaRFG3 Follow-up Amendments on November 16, 2000**

Work In Progress

- Board directed staff to provide semi-annual updates on the implementation of the CaRFG3 regulations.



Compliance Plans Update

- **Initial compliance plans received**
 - From refiners and pipeline distributors
- **Next set of plans due September 2001.**
- **California refiners have begun CEQA process.**
- **Proposed schedules show refiners and the common carrier pipeline system are on track for December 31, 2002.**
- **Issues relating to the supply of ethanol to California are being evaluated by the CEC**

Other Activities

The Board directed staff to address the following issues:

- **By December 31, 2001;**
 - **Assess commingling effects and make recommendation**
 - **Assess permeation effects and make recommendation**
 - **Review deminimus levels of MTBE and non-ethanol oxygenates in CaRFG3**

Other Activities (cont'd)

- **From 2002 thru 2004:**
 - Evaluate RFG3 sulfur levels
 - Evaluate interim allowable MTBE residual limits
 - Evaluate CaRFG3 driveability index
 - Verify benefits of CaRFG2 are preserved

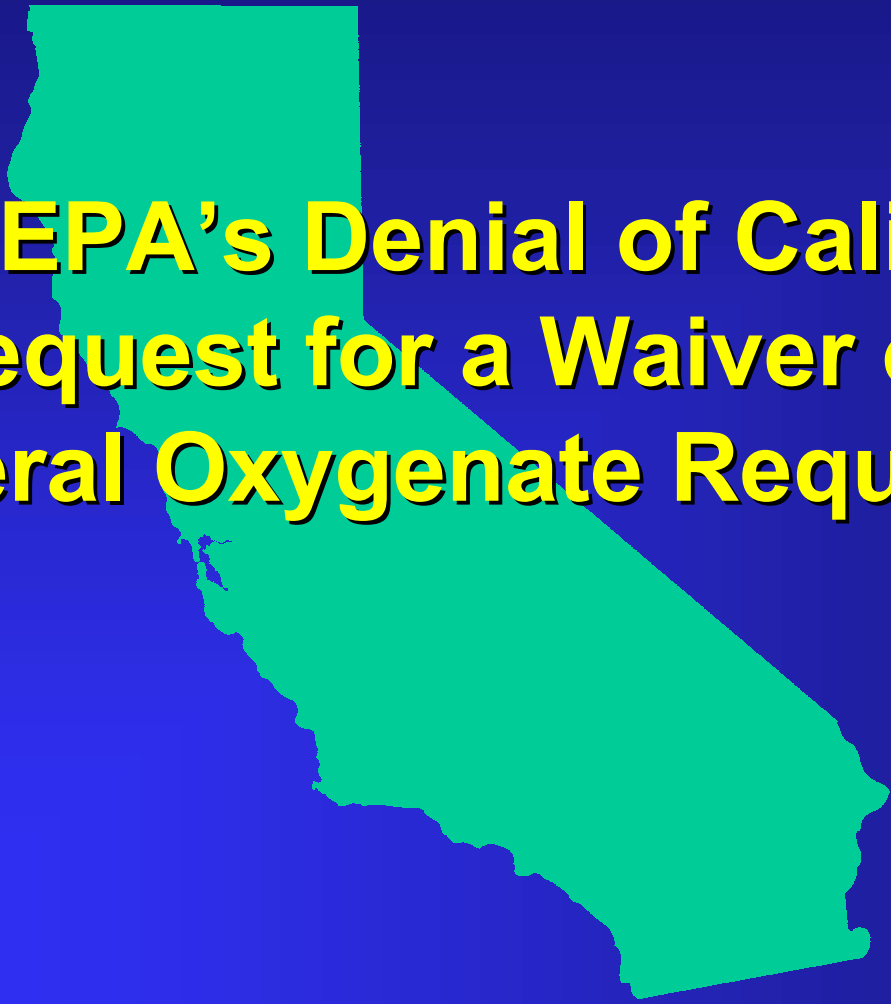
Permeation Emission Evaluation

To evaluate the potential for increased evaporative hydrocarbon emissions due to the permeation of ethanol

- Contract completed to investigate potential permeation emissions losses:**
 - Performed literature search
 - Confirms ethanol increases permeation emission losses
 - Recommends a test program that would provide experimental data on permeation emissions from use of ethanol.

Commingling Emissions Evaluation

- In CaRFG3, the Board determined that a tightening of the RVP standard by 0.1 psi to offset the expected commingling effect was necessary.
- To further evaluate commingling and determine if additional actions are needed:
 - Staff established an ARB/Industry working group.
 - Staff completed the preliminary field work.
 - Staff will finish testing by September.
 - Report back in December.



U.S. EPA's Denial of California's Request for a Waiver of the Federal Oxygenate Requirement



Legal Basis for a Waiver of the Federal RFG Oxygen Requirement

- **The Clean Air Act authorizes the U.S. EPA to waive the federal minimum oxygen requirement,**
 - **“... upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national ambient air quality standard.”**

Scientifically - Oxygen Not Needed

- In 1999, the United States Environmental Protection Agency's Blue Ribbon Panel on Oxygenate Use in Gasoline found that:
 - “Within California, lifting the oxygen requirement will result in greater flexibility to maintain and enhance emissions reductions, particularly as California pursues new formulation requirements for gasoline.”

- **Dr. Chameides, Chairman of the Nation Research Council's Committee on the Ozone Forming Potential of the Reformulated Gasoline has reported,**
 - **“... having oxygen in the fuel made no difference in terms of air quality benefits during the summer.”**

- **California's request for a waiver is supported by:**
 - Both State and local water agencies
 - NRDC
 - Sierra Club
 - American Lung Association
 - WSPA
 - CEC and many others



- **March 25, 1999 - Governor Davis issued an Executive Order for the Phase-out of MTBE from California gasoline.**
- **April 12, 1999 - Governor Davis sent a letter to the Administrator of the U.S. EPA requesting a waiver of the federal RFG oxygen requirement.**

- **From July, 1999 through February 2000, the ARB provided additional material in support of Governor Davis's request for a waiver.**
 - **We believe we clearly demonstrated that there exists a NOx emissions benefit associated with granting a waiver.**
 - NOx contributes to violations of both the ozone and PM10 ambient air quality standards.

- **February 14, 2000 - U.S. EPA confirmed the receipt of a completed application for a waiver.**
 - **U.S. EPA said they hoped to complete their assessment by early summer, 2000.**

U.S. EPA Denial Waiver

- **June 12, 2001 - U.S. EPA denied California's request for a waiver.**
 - **Agreed that waiver would reduce NOx.**
 - **Indicated VOC effect uncertainty due to commingling effect.**
 - **Said data inconclusive relative to ozone.**
 - **Silent on impact of waiver on PM**

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- **The ARB staff strongly disagrees with the U.S. EPA's assessment.**
 - It does not consider impact of NOx emissions on PM10 ambient air quality standard.
 - U.S. EPA estimated commingling effect is based on speculation, and ignores California's assurances.
 - It does not fully consider the latest information that ethanol permeation will increase evaporative emissions.

Effect of Waiver Denial

- **Without a Waiver:**
 - Must use on ethanol in every gallon of gasoline sold in the South Coast and Central Valley.
 - From 8 to 12 tons per day of additional NOx emission reductions will not be realized.
 - California refiners can not accelerate the removal of MTBE from California gasoline.
 - California refiners will lose flexibility to routinely produce gasoline more efficiently and at less cost.
 - An additional potential cause of price spikes will be added

Options Under Consideration

- **Potential options:**
 - **Maintain the current phase-out date of MTBE**
 - **Legally challenge the denial of the waiver**
 - **Ask the U.S. EPA to reconsider**
 - **Extend the MTBE phase-out schedule.**
 - **Pursue a change in the federal law.**
 - **Combinations of the above.**

Timeframe for California's Response

- **Recommendations from the Secretary of Cal/EPA regarding a response to waiver denial due to Governor Davis in September 2001**

Summary

- Continuing to meet Board's CaRFG3 objectives
- Next update in December
 - Will provide updates every 6 months through 2004
- Will continue to monitor supply, prices and other issues
- Recommendations from the Secretary of Cal/EPA regarding the U.S. EPA's denial of California's request for a waiver due to Governor Davis in September of this year.